

The list of best scores is:

680 690 700 710 720 730 740
GAGAGTTTAAAGTCTGTGGAGTAGTATATTTCACTGACTGGTTGGAAATGACAGAGATGGACTGGCCCCCAG
1040 1050 1060 1070 1080 1090 1100
GAGAGTTTAAAGTCTGTGGAGTAGTATATTTCACTGACTGGTTGGAAATGACAGAGATGGACTGGCCCCCAG
1110 1120 1130 1140 1150 1160 1170
ATTCTCTGCTGTGTAGAGATTTCCAGGATTTCCAAACAGGCCCAACAGGAGATCTCAGTGACCTTTATC
1180 1190 1200 1210 1220 1230 1240
AAGAGGGTTGTGGAGAAATATATTTCCCTTTTGGAGGAAACCAACCACTGCAGGTCTGAGGTTTCTGG
1250 1260 1270 1280 1290 1300 1310
GAATCTCCATTTGGGTGACACAAATCTGCGCATGATTTCTCACCATTACTCTGCTGCGGCTCTGTATTATG
1320 1330 1340 1350 1360 1370 1380 1390
ATAGAGGGAGCGGGGACAGACCAATGATGCTTTGAAGATGACAACTCTCAGCACCTGTGATGCTCCCT
1400 1410 1420 1430 1440 1450 1460
CAGTAGAACCTGTTGAACCAAGCTGTCAAGATCTTTGAACACACATCCATGCGCAACAGCTTTAATACAC
1470 1480 1490 1500 1510 1520 1530
ACTTTGAGATGGAGGAGTTATAAAGAAATGTACAGAGAAACCAACAACTGTTTACTGGACTTTGTG
1540 1550 1560 1570 1580 1590 1600
AAATTTTGTAGTACTACTATGTGTTTCAGAAATGTAGAAATAAATGTCGCATAAATAACACCTAAG
1610 1620 1630 1640 1650 1660 1670
CATATATACTTCTATGTTTAAATGAGGATGGAAGAGTTTCATGTCAATAGTCACCACTGGACAATAAT
1680 1690 1700 1710 1720 1730 1740 1750
GATGCCCTTAAATGCTGAACAGAGATGTATACCCACTGTAGCCCTGTGATGACTTTTACTGGAACAG
1760 1770 1780 1790 1800 1810 1820
TTATGTTTGGAGCAGATGTTTATGATTCATTTCCGATTCCTCCTGATCCATGCAACGAGTCACATGCTGGAGCTG
1830 1840 1850 1860 1870 1880 1890
GAGCCATAGTAAAGTTGATTTACTTCTACCACTAGTATATAAGTACTAATTAATGCTACATAGGAG
1900 1910 1920 1930 1940 1950 1960
GAGCCATAGTAAAGTTGATTTACTTCTACCACTAGTATATAAGTACTAATTAATGCTACATAGGAG

1540 1550 1560 1570 1580 1590 1600
TTAGAAATACTATAATCTTTTATTACTCAGCATCTATCTCTGATGCTAAATAATATATATATCAGAAA
1610 1620 1630 1640 1650 1660 1670
ACTTTCAATATTTGTGACTACCTAAATGTGATTTTGTCTGTTACTAAATAATCTTACCCTAAAGAGC
1680 1690 1700 1710 1720 1730 1740 1750
AAGCTACACATCTCTTAGCTCATCAGGATTTTGTATATAGCTGTGTAAATCTGTATATATTCAG
2040 2050 2060 2070 2080 2090 2100 2110
AAGCTACACATCTCTTAGCTCATCAGGATTTTGTATATAGCTGTGTAAATCTGTATATATTCAG
2120 2130 2140 2150 2160 2170 2180
TCGATTTTCAGTTCTGTATAGTAAAGTAAACCAATTAAGAAAGGAAATTTGTCTGTATAGCATCATTTAT
1830 1840 1850 1860 1870 1880 1890
TTTTAGCCCTTTCCTGTTTAAATAAGCTTTACTATTCTGCTGCGCTTATATACATAAATCTGTTATTTA
2190 2200 2210 2220 2230 2240 2250
TTTTAGCCCTTTCCTGTTTAAATAAGCTTTACTATTCTGCTGCGCTTATATACATAAATCTGTTATTTA
1900 1910 1920 1930 1940 1950 1960
AATCTTTAACCACTAAATTTGAAATTTACCAGTGTGATACATAGGAATCAATTTTCAGAATGATGCTGTC
2260 2270 2280 2290 2300 2310 2320
AATCTTTAACCACTAAATTTGAAATTTACCAGTGTGATACATAGGAATCAATTTTCAGAATGATGCTGTC
1970 1980 1990 2000 2010 2020 2030
TTTTAGGAAGTATTAATAAGAAATTTGCATATACCTTAGTTGATTCAGAAGGACTGTATGCTGTTTTCT
2330 2340 2350 2360 2370 2380 2390
TTTTAGGAAGTATTAATAAGAAATTTGCATATACCTTAGTTGATTCAGAAGGACTGTATGCTGTTTTCT
2040 2050 2060 2070 2080 2090 2100 2110
CCCAATGAGACTCTTTTTCACACTAAACACTTTTAAAGGCTTATCTTTGCTCTCCAAACAGAGC
2400 2410 2420 2430 2440 2450 2460 2470
CCCAATGAGACTCTTTTTCACACTAAACACTTTTAAAGGCTTATCTTTGCTCTCCAAACAGAGC
2120 2130 2140 2150 2160 2170 2180
AATAGCTCCCAAGTCAATATAATTTCTACAGAAATAGTGTCTTTTCTCCGAAATAATGCTTGTGAGAT
2480 2490 2500 2510 2520 2530 2540
AATAGCTCCCAAGTCAATATAATTTCTACAGAAATAGTGTCTTTTCTCCGAAATAATGCTTGTGAGAT
2190 2200 2210 2220 2230 2240 2250
CAATTAACATGTCACATTTAGAGATCTTTGTTTATTTCACTGATTAATATATACATGTCGCAATATACACA
2550 2560 2570 2580 2590 2600 2610
CAATTAACATGTCACATTTAGAGATCTTTGTTTATTTCACTGATTAATATATACATGTCGCAATATACACA
2260 2270 2280 2290 2300 2310 2320
GATTATTAATTTTTCACAGAGTAGTATATTTTGAATGGGAAAGTGCATTTTACTGTATTTTG
2620 2630 2640 2650 2660 2670 2680
GATTATTAATTTTTCACAGAGTAGTATATTTTGAATGGGAAAGTGCATTTTACTGTATTTTG
2330 2340 2350 2360 2370 2380 2390 X
TGTTATTTGTTTATTTCTCAGAAATGGAAGAAATAAATGTGCAATAAATATTTTCTAGAGATTA
2690 2700 2710 2720 2730 2740 2750 X
TGTTATTTGTTTATTTCTCAGAAATGGAAGAAATAAATGTGCAATAAATATTTTCTAGAGATTA
AAAAA

IntelliGenetics

FastDB - Fast Pairwise Comparison of Sequences
Release 5.4

Results file Seq1382andSeq4.res made by tport on Wed 15 Sep 104 14:43:39-PST.

Query sequence being compared: us100407391382 (1-442)
 Number of sequences searched: 3
 Number of scores above cutoff: 3

Results of the initial comparison of us100407391382 (1-442) with:
File : US09830328C.seq

SCORE	0	46	92	138	184	231	277	323	369	415
STDEV	0	46	92	138	184	231	277	323	369	415

PARAMETERS

Similarity matrix	Unitary	K-tuple	4
Mismatch penalty	1	Joining penalty	30
Gap penalty	5.00	Window size	442
Gap size penalty	0.33		
Cutoff score	1		
Randomization group	0		

SEARCH STATISTICS

Scores:	Mean	Median	Standard Deviation
	159	29	221.72
Times:	CPU		Total Elapsed
	00:00:00.00		00:00:00.00

Number of residues:	6063
Number of sequences searched:	3
Number of scores above cutoff:	3

The scores below are sorted by initial score. Significance is calculated based on initial score.

A 100% identical sequence to the query sequence was not found.

The list of best scores is:

Sequence Name	Description	Length	Score	Init. Opt.	Sig. Frame

	*** 1 standard deviation above mean			****	

1. us100407391382 (1-442)
US-09-830-328C-4 Sequence 4, Application US/09830328C

```
Initial Score      = 415 Optimized Score = 419 Significance = 1.15
Residue Identity = 96% Matches      = 425 Mismatches = 13
Gaps              = 4 Conservative Substitutions = 0
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TTTAAGTCTGTGAGTAGTATATTCACCTGCTGTTTGGAAATGCACAGATGACCTGGCCCCGACATTCCT
TTTAAGTCTGTGAGTAGTATATTCACCTGCTGTTTGGAAATGCACAGATGACCTGGCCCCGACATTCCT
TTTAAGTCTGTGAGTAGTATATTCACCTGCTGTTTGGAAATGCACAGATGACCTGGCCCCGACATTCCT
1040 1050 1060 1070 1080 1090 1100

100 110 120 130 140 150 160
TCTGTGTAGAGATTCACAGAGTTCACACAGGCCACACAGAGATCTCAGTCACTTTATCAAGG
|||
TCTGTGTAGAGATTCACAGAGTTCACACAGGCCACACAGAGATCTCAGTCACTTTATCAAGG
|||
TCTGTGTAGAGATTCACAGAGTTCACACAGGCCACACAGAGATCTCAGTCACTTTATCAAGG
|||
TCTGTGTAGAGATTCACAGAGTTCACACAGGCCACACAGAGATCTCAGTCACTTTATCAAGG
|||
110 1120 1130 1140 1150 1160 1170 1180

GGTTGTGGAGAAAATGTTCTCTTTTTCAGAGGAACCAAACTCAGCTGCTGAGGTTTCTGGGAATC
170 180 190 200 210 220 230
GGTTGTGGAGAAAATGTTCTCTTTTTCAGAGGAACCAAACTCAGCTGCTGAGGTTTCTGGGAATC
1190 1200 1210 1220 1230 1240 1250

240 TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
250 255 260 265 270 275 280 285 290 295 300 305
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
310 315 320 325 330 335 340 345 350 355 360 365
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
370 375 380 385 390 395 400 405 410 415 420 425
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
430 435 440 445 450 455 460 465 470 475 480 485
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
490 495 500 505 510 515 520 525 530 535 540 545
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
550 555 560 565 570 575 580 585 590 595 600 605
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
610 615 620 625 630 635 640 645 650 655 660 665
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
670 675 680 685 690 695 700 705 710 715 720 725
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
730 735 740 745 750 755 760 765 770 775 780 785
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
790 795 800 805 810 815 820 825 830 835 840 845
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
850 855 860 865 870 875 880 885 890 895 900 905
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
910 915 920 925 930 935 940 945 950 955 960 965
TCATTGGGGTGACACAAATCTCGCCATGATTTCCACATTACTCTGCTCTGGGCTCTGATTATGATAGA
970 975 980 985 990 995

AGGAGCTGGGACAGACCAATGATCTCTTGAAGAATGACAATCTCAGCACCTGTCAATGTCCCTCAGTA
AGGAGCGGGGACAGACCAATGATCTCTTGAAGAATGACAACCTCAGCACCTGTCAATGTCCCTCAGTA
1370 1380

390 400 410 420 430 440 X
 GAAC TTG TGA AAC CAA GCG CT CTA AGA AAT CTT TGA CAC CAT CCA CTG CCA AACT CG AG
 GAAC TTG TGA AAC CAA GCG CT CTA AGA AAT CTT TGA CAC CAT CCA CTG CCA AACT CG AG
 GAAC TTG TGA AAC CAA GCG CT CTA AGA AAT CTT TGA CAC CAT CCA CTG CCA AACT CG AG
 GAAC TTG TGA AAC CAA GCG CT CTA AGA AAT CTT TGA CAC CAT CCA CTG CCA AACT CG AG

GAGATGGAGGAGTTATAAAAAGAAATGTCACAGAAGAA
1470 1480 1490 1500

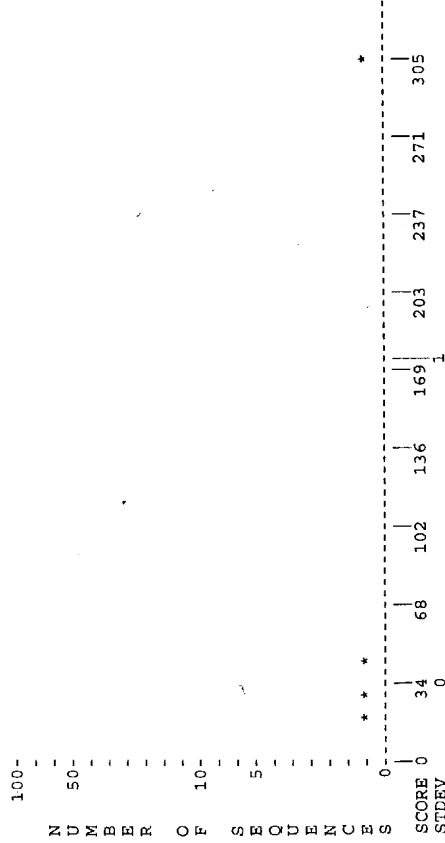
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FastDB - Fast Pairwise Comparison of Sequences
Release 5.4

Results file us-10-063-724-108.res made by tport on Mon 4 Oct 104 14:27:06-PST.

Query sequence being compared: US-10-063-724-108 (1-305)
Number of sequences searched: 4
Number of scores above cutoff: 4

Results of the initial comparison of US-10-063-724-108 (1-305) with:
File : US09830328C.pcp



PARAMETERS

Similarity matrix PAM-150 K-tuple 1
Threshold level of sim. 16%
Mismatch penalty 1 Joining penalty 20
Gap penalty 5.00 Window size 305
Gap size penalty 0.05
Cutoff score 1
Randomization group 0

SEARCH STATISTICS

Scores: Mean Median Standard Deviation
101 33 136.13
Times: CPU
00:00:00.00 Total Elapsed
00:00:00.00

Number of residues: 1078
Number of sequences searched: 4
Number of scores above cutoff: 4

1. US-10-063-724-108 (1-305)
US-09-830-328C-2 Sequence 2, Application US/09830328C

Initial Score = 305 Optimized Score = 305 Significance = 1.50
Residue Identity = 100% Matches = 305 Mismatches = 0
Gaps = 0 Conservative Substitutions = 0

X
MAREDSVKCLRLCLLYALNLLFWLMSISVLAWSAMRDYLNVLTLTAETVEEAVILTPPVVHPVMIAYCC
|||||
MAREDSVKCLRLCLLYALNLLFWLMSISVLAWSAMRDYLNVLTLTAETVEEAVILTPPVVHPVMIAYCC
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80 90 100 110 120 130 140
FLIIIVGMLGYCGTVKRNLLLLAWYFGSLLVIFCVELACGVWYVEQELMVQVSDWVTLKARNTNYGLPRYR
|||||
FLIIIVGMLGYCGTVKRNLLLLAWYFGSLLVIFCVELACGVWYVEQELMVQVSDWVTLKARNTNYGLPRYR
80 90 100 110 120 130 140
150 160 170 180 190 200 210
WLTHAWNFFOREFXCCGVVYFTDWMLENTMDWPPDSCCVREFFGCCSKQAHCEDLSLTYQEGCGKMYSLRIG
|||||
WLTHAWNFFOREFXCCGVVYFTDWMLENTMDWPPDSCCVREFFGCCSKQAHCEDLSLTYQEGCGKMYSLRIG
150 160 170 180 190 200 210
220 230 240 250 260 270 280
TKQQLVRLFLGISIGVTQILAMILITITLLWALYDRREPGRDQWMSLKNDNSQHLSCPSVELLKPSLSRIFE
|||||
TKQQLVRLFLGISIGVTQILAMILITITLLWALYDRREPGRDQWMSLKNDNSQHLSCPSVELLKPSLSRIFE
220 230 240 250 260 270 280
290 300 X
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HTSMANSENTHFEMEEL
290 300 X